

08/818321

RETURN PATH FILTER

ABSTRACT OF THE DISCLOSURE

A filter for controlling the return path loss in a multi-channel communication system having forward and return paths. The filter comprises a forward path filter network, and a return path filter network. The forward path network passes signals in the forward path, and includes at least one resonant circuit component, such as a capacitor, which is coupled to the return path network. The return path network passes signals in the return path, and includes at least one resonant circuit, such as a series LC trap to ground. A combined resonant circuit is formed, at least in part, by the resonant circuit of the return path network and the resonant circuit component of the forward path network (e.g., a combined series LC trap to ground). The return path network further includes an attenuator network which is designed to attenuate the signals in the return path frequency band. Preferably, the attenuator network is a resistive network which provides a predetermined amount of flat loss.

00016231.031457